

### **REMARKS**

In the Office Action mailed July 25, 2004, claim 15 was rejected under 35 U.S.C. 112, second paragraph. Claims 1, 12 and 21-24 were rejected under 35 U.S.C. 102(b).

#### **The Amendments**

Claim 15 has been amended to insert the composition of host MX6111 into the claim. This amendment to claim 15 is supported by the specification on pages 38-41.

No new matter is added by any amendment, and all amendments are supported by the specification as filed.

#### **Election/Restriction**

On July 10, 2003, the Examiner telephoned the undersigned to request a telephone election of species. On July 14, 2003, applicant made a provisional election with traverse by telephone of the species of claim 8, and if further required, compound MDW 1401. Applicant confirms this election with traverse. It is believed it would not be burdensome to search all species together. In addition, claims 1, 25, 30, 35 and 38 are believed to be allowable generic claims. It is believed claim 40 should be included in the claims under consideration, since Compound MDW 1401 and the elected species read on claims 40. Reconsideration and withdrawal of the election requirement is respectfully requested.

#### **35 U.S.C. 112, second paragraph rejection**

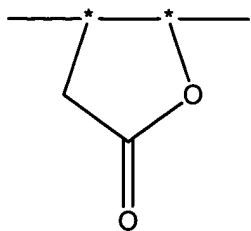
In the Office Action mailed July 25, 2003, claim 15 was rejected under 35 U.S.C. 112, second paragraph. The Office Action stated the host MX6111 should be clearly defined.

In response, MX6111 is defined in the specification on pages 38-41. To advance prosecution, the composition of host MX6111 has been added to claim 15. It is believed this amendment overcomes the rejection. Reconsideration and withdrawal of the rejection is respectfully requested.

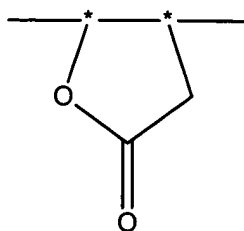
35 U.S.C. 102(b) rejection

In the Office Action mailed July 25, 2003, claims 1, 12 and 21-24 were rejected under 35 U.S.C. 102(b) as allegedly anticipated by JP 7-309858. The Office Action stated "The reference discloses an optically active compound having lactone group shown in Formulae I and III. The reference compound is suitable for a ferroelectric chiral liquid crystal element. The preparation of the reference compound is disclosed from sections [047]-[049]. Particularly, see the compounds 245-246, 248-250 and 253-255, which have fluorinated side group as the present claim. The concentration range of the reference compound used in liquid crystal composition is from 1-40%. See section [0100], which the optically active compound is 5% in liquid crystal composition. Also, see sections [0161] and [0167]. The reference anticipates the claimed invention. Regarding to claim 23, the reference also inherently anticipates the claimed invention because the reference comprises the present optically active compound and the host mixture used in ferroelectric liquid crystal composition."

In response, the cited reference does not anticipate the claimed invention. All comments below are directed to the English translation provided by the Examiner for JP 7-309858. Applicant acknowledges the use of a partially-fluorinated tail and a lactone ring as a tail group (substituents (v) and (ix) in paragraph [0041] of JP 7-309858), however, all compounds of JP 7-309858 require the presence of variable "L" which is defined as "optical-activity swine NORIDO -3 and 4-diyl" (see translation of JP 7-309858, paragraph [0022], fifth and fourth lines from the bottom of paragraph) as a core substituent (i.e., non-tail group). This is a critical difference between the claimed invention and the JP 7-309858 reference. "L" is defined in paragraph [0052] as:



L1



L2

An "L" substituent is required to be present in the compounds disclosed in JP 7-309858 as part of the inner core. All structures disclosed in JP 7-309858 include one of L1 and L2 in the inner core of the compound. (see JP 7-309858 translation paragraph [0048]-[0049]; structures in Tables 1 through 9, for example).

The present invention does not include structures corresponding to L1 and L2 in the inner core (non-tail groups) of the compound and does not include optically active lactone rings in the core. Therefore, the present claims are not anticipated by JP 7-309858. Reconsideration and withdrawal of the rejection is respectfully requested.

### 35 U.S.C. 103(a) rejection

In the Office Action mailed July 25, 2003, claim 20 was rejected under 35 U.S.C. 103(a) under JP 7-309858. The Office Action stated "The reference differs from the claim in that the claim has same number of m and n. Because the notations h and I in group (v) on page 4 are from 1 to 10 and 0 to 7, respectively, it would have been obviously to those skilled in the art to select the same number for m and n to arrive at the claimed invention."

In response, a prima facie case of obviousness is not made in this case. It is noted that the JP 7-309858 reference requires an optically-active lactone ring as a non-tail substituent (see discussion above). It would not be obvious to change this central feature of the JP 7-309858 reference to obtain the compounds in the present claims. There is no suggestion to modify the JP 7-309858 reference to use and prepare compounds that do not include an optically-active lactone ring in the core. There is no reasonable expectation of success in such a modification because

the reference is devoted to methods of preparing compounds having an optically-active lactone ring as a required substituent in the core (see "Constitution" section; and paragraphs [0046-0049, for example]. In addition, the JP 7-309858 reference does not teach or suggest all claim limitations, because there is no teaching or suggestion of liquid crystal compound that do not have an optically-active lactone ring as a substituent of the core (non-tail) portion.

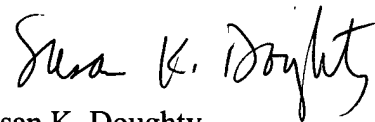
In view of the above arguments, it is believed the rejection is overcome. Reconsideration and withdrawal of the rejection is respectfully requested.

### **CONCLUSION**

In view of the above arguments and amendments, it is believed that all rejections are overcome. Reconsideration and withdrawal of all rejections is respectfully requested. If there are any issues remaining to passage of the case to issuance, the Examiner is respectfully requested to telephone the undersigned.

This response is accompanied by a Petition for Extension of Time (three months) and a check for \$950.00. If the amount submitted is incorrect, however, please credit any overpayments or deduct any deficiency from Deposit Account No. 07-1969.

Respectfully submitted,



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